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DIRECT DIMETHYL ETHER FUEL CELLS

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Abstract

Low temperature fuel cells, e.g. solid polymer fuel cells, can operate directly on a fuel comprising dimethyl ether with dimethyl ether being oxidized at the fuel cell anode. Being highly soluble in water, dimethyl ether can be supplied as a liquid aqueous fuel solution. As a fuel, dimethyl ether provides similar power characteristics as methanol but typically with a greater Faradaic efficiency in liquid feed solid polymer fuel cells.

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